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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,234	03/25/2004	Jian Fan	200315286-1	6694

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EXAMINER
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COUSO, JOSE L

ART UNIT	PAPER NUMBER
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2624

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/809,234	<b>Applicant(s)</b> FAN ET AL.	
	<b>Examiner</b> Jose L. Couso	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-11,14-19 and 22-27 is/are rejected.
- 7) ☒ Claim(s) 3,4,12,13,20 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/18/06</u> | 6) <input type="checkbox"/> Other: ____  |

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-18 are drawn to a computer implemented process that merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application in the technological arts.

In order for a claimed invention to accomplish a practical application, it must produce a "useful, concrete and tangible result" *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). A practical application can be achieved through recitation of "a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan", or "limited to a practical application within the technological arts" (MPEP 2106 IVB2(b)). Currently, claims 1-18 meet neither of these criteria. In order for the claimed process to produce a "useful, concrete and tangible" result, recitation of one or more of the following elements is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2(b)(i)).
- A recitation of a physical transformations outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106 IVB2(b)(i)).

- A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2(b)(ii)).

3. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-18 are drawn to non-functional descriptive material. MPEP 2106.IV.B.1(a) (Nonfunctional Descriptive Material) states:

“Descriptive material that cannot exhibit any functional interrelationship with the way in which computing processes are performed does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. 101.”

“Where certain types of descriptive material, such as music, art, photographs and mere arrangements or compilations of facts or data, are merely stored so as to be read or outputted by a computer without creating any functional interrelationship, either as part of the stored data or as part of the computing process performed by the computer, then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer.”

“For example, music is commonly sold to consumers in the form of a compact disc. In such cases, the know compact disc acts as nothing more than a carrier for nonfunctional descriptive material. The purely nonfunctional descriptive material cannot alone provide the practical application for the manufacture.”

MPEP 2106.IV.B.1 (Nonstatutory Subject Matter) states:

“When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement”.

Claims 1-18 currently recite a method and computer readable medium. There is no functional relationship imparted by this data to a computing device. Therefore, the claim is drawn to non-functional descriptive material which is non-statutory per se. The fact that the claim recites a computer readable medium does not provide the utility (i.e.,

practical application in the technological arts) required under 35 U.S.C. 101 for the manufacture.

4. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-18 are drawn to functional descriptive material embodied on a computer readable medium (i.e., "data structures and computer programs which impart functionality when employed as a computer component" at MPEP 2106.IV.B(1)). However, the program/algorithm itself merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application in the technological arts. MPEP 2106.IV.B.2(a) (Statutory Product Claims) states:

"A claim limited to a ... manufacture, which has a practical application in the technological arts, is statutory."

In order for a claimed invention to accomplish a practical application, it must produce a "useful, concrete and tangible result" *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). Currently, the claim does not recite a practical application. In order for the claimed product to produce a "useful, concrete and tangible" result, recitation of one or more of the following elements is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2(b)(i)).

- A physical transformations outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106 IVB2(b)(i)).
- A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2(b)(ii)).

5. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-10 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 1-10, while defining an algorithm, does not define a "computer-readable medium" and is thus non-statutory for that reasons. An algorithm can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium encoded with a computer program" in order to make the claim statutory.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

6. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is so abstract and sweeping as to cover the method if practiced by a human operator assisted only by pencil and paper. The claims do not include a particular machine or apparatus, and no machine-implemented steps are recited, the steps are capable of performance by the human mind. A method of this sort, traditionally called a mental process, is not patentable subject matter.

A Phenomena of nature, though just discovered, mental-processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work. (emphasis added). Gottschalk v. Benson, 175 USPQ 673, 675 (USSC 1972). See also, In re Prater and Wei, 159 USPQ 583 (1968), rehearing, 162 USPQ 541 (1969).

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-2, 5-11, 14-19 and 22-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Venable (U.S. Patent No. 6,557,017).

With regard to claim 1, Venable describes identifying a container region and an object to be inserted into the container region (see figure 18, Object Mount, Object Text1, Object Bird1, Object Home1, Object Tree1 and Object Home2); determining a placement location for the object within the container region and a scale factor associated therewith (as clearly illustrated in figure 18 and refer for example to column 18, lines 50-67); and inserting the object into the container region at the placement location using the scale factor (as clearly illustrated in figure 18).

As to claim 2, Venable describes wherein the container region is part of a first image and the object is part of a second image (as clearly illustrated in figure 18).

As to claim 5, Venable describes wherein the step of determining a placement location within the container region and the scale factor associated with the object further comprises the steps of determining a scale factor, determining whether the object will fit into the container region at the scale factor, if the object will fit into the container region at least one location, selecting a placement location for the object, and otherwise, reducing the scale factor and determining whether the object will fit into the container region at the reduced scale factor (refer for example to column 8, lines 40-67).

In regard to claim 6, Venable describes further comprising the step of downsampling the first image prior to identifying the container region (refer for example to column 8, lines 21-30, the different resolutions).

With regard to claim 7, Venable describes wherein the step of selecting the placement location for the object further comprises the steps of identifying a plurality of feasible placement locations for the object within the container region at the scale factor



and selecting one of the plurality of feasible placement locations as the placement location (refer for example to column 8, lines 40-67).

As to claim 8, Venable describes wherein the step of selecting one of the plurality of feasible placement locations as the placement location further comprises the step of determining a mean center associated with origin points of the plurality of feasible placement locations and selecting the mean center as an origin point of the placement location (refer for example to column 9, line 40 through column 10, line 21).

In regard to claim 9, Venable describes wherein the step of inserting the object into the container region at the placement location using the scale factor further comprises the steps of determining a boundary associated with a scaled version of the object, storing the boundary and the placement location and inserting the object into the container region using the stored boundary and placement location (refer for example to column 13, line 65 through column 15, line 15).

With regard to claim 10, Venable describes a computer readable medium containing a program causing the computer to perform the steps (see figure 1, element 110 and refer for example to column 7, lines 21-25) of identifying a container region and an object to be inserted into the container region (see figure 18, Object Mount, Object Text1, Object Bird1, Object Home1, Object Tree1 and Object Home2); determining a placement location for the object within the container region and a scale factor associated therewith (as clearly illustrated in figure 18 and refer for example to column 18, lines 50-67); and inserting the object into the container region at the placement location using the scale factor (as clearly illustrated in figure 18).

As to claim 11, Venable describes wherein the container region is part of a first image and the object is part of a second image (as clearly illustrated in figure 18).

As to claim 14, Venable describes wherein the step of determining a placement location within the container region and the scale factor associated with the object further comprises the steps of determining a scale factor, determining whether the object will fit into the container region at the scale factor, if the object will fit into the container region at least one location, selecting a placement location for the object, and otherwise, reducing the scale factor and determining whether the object will fit into the container region at the reduced scale factor (refer for example to column 8, lines 40-67).

In regard to claim 15, Venable describes further comprising the step of downsampling the first image prior to identifying the container region (refer for example to column 8, lines 21-30, the different resolutions).

With regard to claim 16, Venable describes wherein the step of selecting the placement location for the object further comprises the step of identifying a plurality of feasible placement locations for the object within the container region at the scale factor and selecting one of the plurality of feasible placement locations as the placement location (refer for example to column 8, lines 40-67).

As to claim 17, Venable describes wherein the step of selecting one of the plurality of feasible placement locations as the placement location further comprises the step of determining a mean center associated with origin points of the plurality of feasible placement locations and selecting the mean center as an origin point of the placement location (refer for example to column 9, line 40 through column 10, line 21).

In regard to claim 18, Venable describes wherein the step of inserting the object into the container region at the placement location using the scale factor further comprises the steps of determining a boundary associated with a scaled version of the object, storing the boundary and the placement location and inserting the object into the container region using the stored boundary and placement location (refer for example to column 13, line 65 through column 15, line 15).

With regard to claim 19, Venable describes a processor (see figure 1, element 110 and refer for example to column 7, lines 21-25) for inserting an object into a container region by segmenting the object and the container region (see figure 18, Object Mount, Object Text1, Object Bird1, Object Home1, Object Tree1 and Object Home2); determining a placement location within the container region for the object and a scale factor associated therewith (as clearly illustrated in figure 18 and refer for example to column 18, lines 50-67); and inserting the object into the container region at the placement location using the scale factor to generate a composite image (as clearly illustrated in figure 18); and an output device for outputting the composite image (see figure 1, element 130 and refer for example to column 7, lines 30-31).

With regard to claim 22, Venable describes wherein the processor determines a placement location within the container region and the scale factor associated with the object by: determining a scale factor, determining whether the object will fit into the container region at the scale factor, if the object will fit into the container region at least one location, selecting a placement location for the object, and otherwise, reducing the

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scale factor and determining whether the object will fit into the container region at the reduced scale factor (refer for example to column 8, lines 40-67).

As to claim 23, Venable describes wherein the processor downsamples the second image prior to segmenting the container region (refer for example to column 8, lines 21-30, the different resolutions).

In regard to claim 24, Venable describes wherein the processor identifies a plurality of feasible placement locations for the object within the container region at the scale factor; and selects one of the plurality of feasible placement locations as the placement location (refer for example to column 8, lines 40-67).

With regard to claim 25, Venable describes wherein the processor determines a mean center associated with origin points of the plurality of feasible placement locations and selects the mean center as an origin point of the placement location (refer for example to column 9, line 40 through column 10, line 21).

As to claim 26, Venable describes further comprising a memory device for storing a boundary associated with a scaled version of the object; wherein the processor inserts the object into the container region using the stored boundary and placement location (see figure 1, element 150 and refer for example to column 7, lines 36-37 and column 13, line 65 through column 15, line 15).

In regard to claim 27, Venable describes means (see figure 1, element 110 and refer for example to column 7, lines 21-25) for segmenting an object and a container region (see figure 18, Object Mount, Object Text1, Object Bird1, Object Home1, Object Tree1 and Object Home2); means (see figure 1, element 110 and refer for example to

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column 7, lines 21-25) for determining a placement location within the container region for the object and a scale factor associated therewith (as clearly illustrated in figure 18 and refer for example to column 18, lines 50-67); and means (see figure 1, element 110 and refer for example to column 7, lines 21-25) for inserting the object into the container region at the placement location using the scale factor (clearly illustrated in figure 18).

9. Claims 3-4, 12-13 and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ferrel et al., Saund et al. and Biermann et al. all disclose systems similar to applicant's claimed invention.

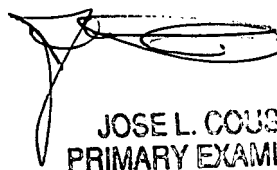
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jose L. Couso whose telephone number is (571) 272-7388. The examiner can normally be reached on Monday through Friday from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the USPTO contact Center whose telephone number is (703) 308-4357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jlc  
June 20, 2007



JOSE L. COUSO  
PRIMARY EXAMINER